



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

OCT 13 1988

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MEMORANDUM

SUBJECT: Review of Analytical Data

FROM: Kent M. Kitchingman, Chief *David M. Kitchingman for*
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO: Tom Mix, Chief
Site Evaluation Section
Field Operations Branch, TWPD (T-4-7)

Attached are comments resulting from Region 9 review of the following analytical data:

SITE: Pacific Fruit Express
EPA SITE ID NO.: AZD045804325
CASE/SAS NO.: 10350/4111Y #1

LABORATORY: VERSAR
ANALYSIS: Organics (VOAs only)

SAMPLE NO.: YE818 to YE824
COLLECTION DATE: 9/14 & 15/88

REVIEWER: Greg Nicoll (ICF Technology Incorporated)
TELEPHONE NUMBER: (415) 957-0110

If there are any questions, please contact the reviewer.

Attachment

cc: Carla Dempsey, QA Officer, EPA-HQ (WH-548A)
Jimmie D. Petty, EMSL-LV, QAD
Chuck Sands, DPO Region III X FYI For Action.



ICF TECHNOLOGY INCORPORATED

QUALITY ASSURANCE REPORT

Site: Pacific Fruit Express

EPA Site I.D. Number: AZD045804325

TID Number: 9A-8810-026

Case Number: 10350/4111Y Memo #1

Laboratory: Versar

Matrix/Analyses: 7 low waters for VOA

Sample Number: YE818 through YE824

Collection Date: September 14 and 15, 1988

Date Data Package Received by ESAT: October 7, 1988

Data Package Received From: ESB, EPA Region IX

Follow-Up Data Request Received On:

Evaluated By: Greg Nicoll
ESAT/ICF Technology, Inc.

Data Review Completed On: October 12, 1988

Approved By: *Symala Teaterry*

Date Data Review Report Forward to ESB: October 12, 1988

EPA Concurrence: *Ramona King*
10/13/88

Data Validation Report

Case No.: 10350/4111Y Memo #1

7 low waters for VOA

Site: Pacific Fruit Express

Laboratory: Versar

Reviewer: G. Nicoll, ESAT/ICF Technology, Inc.

Date of this report: October 12, 1988

I. Introduction

Seven low water samples were submitted to the laboratory for VOA analyses on September 17, 1988. All samples were analyzed by the low level procedure with a 25 mL purge volume. In addition to RAS VOA HSL compounds, trichlorofluoromethane and dichlorodifluoromethane were included in the calibration standards and determined in the samples.

Sample number YE820 is a field blank. Sample numbers YE818 and YE819 are field duplicates. Field duplicate pairs have D# suffix (D1 for the first field pair, D2 for the second field pair) in Table 1A.

The analytical results with qualifications are listed in Table 1A. No tentatively identified compounds were found in the samples. The quantitation limits of target compound list (TCL) compounds are presented in Table 2. Table 3 lists the values for the compounds that do not meet criteria in the initial and continuing calibrations.

This report was prepared in accordance with EPA document "Laboratory Data Validation Functional Guidelines For Evaluating Organic Analyses", April 11, 1985.

II. Validity and Comments

- A. The following results are considered usable for limited purposes due to quantitation problems. The results are considered as estimates and are flagged "J" in Table 1A.

Chloromethane in sample number YE820

Vinyl chloride in sample number YE820

Methylene chloride in sample numbers YE818 and YE819

Chloroform in sample number YE820

Toluene in sample number YE820

Results above the instrument detection limit for waters but below the contract required quantitation limit are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

- B. The following results are considered usable for limited purposes due to calibration problems. The results are considered as estimates and are flagged "J" in Tables 1A and 2.

2-Butanone in all samples and laboratory blanks
2-Chloroethylvinylether in all samples and laboratory blanks
2-Hexanone in sample numbers YE821 through YE824 and laboratory
blank 2

The average relative response factor of the initial calibration did not meet criteria (≥ 0.05) as shown in Table 3.

- C. The following results are considered usable for limited purposes due to calibration problems. The results are considered as estimates and are flagged "J" in Table 2.

Dichlorodifluoromethane in all samples and laboratory blanks

The percent relative standard deviation of initial calibration response factors for dichlorodifluoromethane did not meet criteria ($\leq 25\%$) as shown in Table 3.

- D. The following results are considered usable for limited purposes due to contamination problems. The results are considered as estimates and are flagged "J" in Table 1A.

Methylene chloride in sample numbers YE818 and YE819
Acetone in sample numbers YE818, YE819, and YE821 through YE824

The above results were found to be less than ten times the levels found in the field blank. The detection limits have been adjusted to the levels found in the samples.

- E. The 40 CFR 136 holding times were not exceeded for any sample.
- F. Eight compounds were found in the field blank (YE820). The level of methylene chloride was high enough in the field blank to require an additional diluted analysis of the field blank.
- G. All other results are considered valid and usable for all purposes. All QC parameters, other than those discussed here, have been met.

ANALYTICAL RESULTS

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TABLE 1A*

Case No.: 10350/4111Y Memo #1

Analysis Type: Water for VOA

Site: Pacific Fruit Express

Lab.: Versar

Reviewer: G. Nicoll, ESAT/ICF Technology, Inc.

Date: October 12, 1988

Concentration in ug/L

Sample Location	D-14-14-20dac2			D-14-14-20dac3			D-14-14-01aaa			D-14-14-18dcb			D-14-14-29aaa			D-14-14-20bab			D-14-14-20aca		
Sample I.D.	YE818 D1			YE819 D1			YE820 FB			YE821			YE822			YE823			YE824		
Compound	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.
Chloromethane	2 U			2 U			0.5	J	a	2 U			2 U			2 U			2 U		
Vinyl chloride	2 U			2 U			0.3	J	a	2 U			2 U			2 U			2 U		
Methylene chloride	0.4 U	J	ad	0.3 U	J	ad	47			1 U			1 U			1 U			1 U		
Acetone	6.2 U	J	d	2.9 U	J	d	7.7			12 U	J	d	12 U	J	d	3.5 U	J	d	4.0 U	J	d
Chloroform	1 U			1 U			0.4	J	a	1 U			1 U			1 U			1 U		
2-Butanone	2 U	J	b	2 U	J	b	2.3	J	b	2 U	J	b	2 U	J	b	2 U	J	b	2 U	J	b
Toluene	1 U			1 U			0.9	J	a	1 U			1 U			1 U			1 U		
Trichlorofluoromethane	1 U			1 U			1.3			1 U			1 U			1 U			1 U		

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

D1, D2, etc.-Field Duplicate Pairs

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

ANALYTICAL RESULTS

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TABLE 1A*

Case No.: 10350/4111Y Memo #1

Analysis Type: Water for VOA

Site: Pacific Fruit Express

Lab.: Versar

Reviewer: G. Nicoll, ESAT/ICF Technology, Inc.

Date: October 12, 1988

Concentration in ug/L

Sample Location	Lab Blank 1			Lab Blank 2														
Sample I.D.																		
Compound	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.
Chloromethane	2 U			2 U														
Vinyl chloride	2 U			2 U														
Methylene chloride	1 U			1 U														
Acetone	2 U			3.0														
Chloroform	1 U			1 U														
2-Butanone	2 U	J	b	2 U	J	b												
Toluene	1 U			1 U														
Trichlorofluoromethane	1 U			1 U														

*The other requested analytes were analyzed for, but "Not Detected". The Sample Quantitation Limits are listed in Table 2.

Val-Validity Refer to Data Qualifiers in Table 1B.

D1, D2, etc.-Field Duplicate Pairs

Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.

FB-Field Blank, EB-Equipment Blank, TB-Travel Blank

BG-Background Sample

TABLE 1B
DATA QUALIFIERS

NO QUALIFIER indicates that the data are acceptable both qualitatively and quantitatively.

- U Indicates that the compound is not detected above the concentration listed.
- J Results are estimated and the data are valid for limited purposes. The results are qualitatively acceptable.
- N Presumptive evidence of the presence of the material. The compound identification is considered to be tentative. The data are usable for limited purposes.
- R Results are rejected and data are invalid for all purposes.

Method blanks and associated samples:

Lab Blank 1: YE818 through YE820

Lab Blank 2: YE820 for methylene chloride and acetone only, and YE821 through YE824

Field blanks and associated samples:

YE820: YE818 through YE824

TABLE 2
CONTRACT REQUIRED QUANTITATION LIMITS

Case No. : 10350/4111Y Memo #1
Site : Pacific Fruit Express
Lab : Versar
Reviewer : G. Nicoll, ESAT/ICF Technology, Inc.
Date : October 12, 1988

<u>Volatile Compounds</u>	<u>Units, ug/L</u>
Chloromethane	2
Bromomethane	2
Vinyl Chloride	2
Chloroethane	2
Methylene Chloride	1
Acetone	2
Carbon Disulfide	1
1,1-Dichloroethene	1
1,1-Dichloroethane	1
1,2-Dichloroethene (total)	1
Chloroform	1
1,2-Dichloroethane	1
2-Butanone	2 J b
1,1,1-Trichloroethane	1
Carbon Tetrachloride	1
Vinyl Acetate	2
Bromodichloromethane	1
1,1,2,2-Tetrachloroethane	1
1,2-Dichloropropane	1
trans-1,3-Dichloropropene	1
Trichloroethene	1
Dibromochloromethane	1
1,1,2-Trichloroethane	1
Benzene	1
cis-1,3-Dichloropropene	1
2-Chloroethylvinylether	2 J b
Bromoform	1
2-Hexanone	2 J b
4-Methyl-2-Pentanone	2
Tetrachloroethene	1
Toluene	1
Chlorobenzene	1
Ethylbenzene	1
Styrene	1
Total Xylenes	1
Trichlorofluoromethane	1
Dichlorodifluoromethane	1 J c

J(estimated): Value is considered usable for limited purposes. See comment b and c in the narrative.

TABLE 3
VOLATILES: INITIAL AND CONTINUING CALIBRATION

Case No.: 10350/4111Y Memo #1
 Site: Pacific Fruit Express
 Lab.: Versar
 Reviewer: G. Nicoll, ESAT/ICF Technology, Inc.
 Date: October 12, 1988

Analysis Date:	09/21/88	09/22/88
Associated Samples:	YE818, YE819, YE820, and Lab Blank 1	YE821 through YE824 and Lab Blank 2

Calibration Type:	Initial	Initial
Criteria:	RRF \geq 0.05 %RSD \leq 30	RRF \geq 0.05 %RSD \leq 30

Compound:

2-Butanone	0.015	--	0.014	--
2-Chloroethylvinylether	0.049	--	0.047	--
2-Hexanone	--	--	0.040	--
Dichlorodifluoromethane	--	31	--	34